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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/680,190	10/08/2003	Kenji Takagi	008312-0306278	5413

909 7590 05/31/2006

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EXAMINER

RIVERO, MINERVA

ART UNIT PAPER NUMBER

2627

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/680,190	TAKAGI, KENJI	
	Examiner	Art Unit	
	Minerva Rivero	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamada *et al.* (US 6,459,664), hereinafter Yamada.

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4. Regarding claims 1 and 5, Yamada discloses a method and detection unit configured to detect a first tracking balance value by first adjustment, and to detect a second tracking balance value by second adjustment different from the first adjustment in a tracking balance adjustment mode for controlling a light beam to trace along a track on a disc (Col. 1, Line 66; *first tracking error signal*, Col. 6, Line 62 – Col. 7, Line 5; *second TE signal*, Col. 7, Lines 45-48; *differential push-pull tracking error detection system*, Col. 1, Lines 64-65); and

an adjustment unit configured to adjust tracking balance on the basis of the first and second tracking balance values (*correcting target position*, Col. 8, lines 15-20).

5. Regarding claims 2 and 6, Yamada discloses the detection unit detects the first tracking balance value on the basis of symmetry of a signal obtained from light reflected by the disc, and detects the second tracking value on the basis of jitter of the signal obtained from the light reflected by the disc (*symmetry of the first TE signal and applying a limitation to the correction*, Col. 13, Lines 46-48 and 52-53; *relationship between radial tilt and jitter*, Col. 4, Lines 48-50, see Fig. 23; *best jitter value causes output of second TE signal which is used to correct a target position of a tracking system operated by the first TE signal based on the second TE signal*, Col. 15, Lines 57-63 and Col 16, Lines 13-25).

6. Regarding claims 3 and 7, Yamada discloses the adjustment unit adjusts the tracking balance on the basis of the first tracking balance value in response to a track

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search instruction, and adjusts the tracking balance value when the track search is complete and the light beam traces the track (*first TE signal when searching is performed*, Col. 13, Lines 40-43, see Fig. 16; *correction using the second TE signal is suspended during searching*, Col. 13, Lines 53-67; *correction using the second TE signal is performed when switch 154 is closed (thus when the search has ended)*, Col. 13, Lines 53-67).

7. Regarding claims 4 and 8, Yamada discloses the adjustment unit calculates a third tracking balance value on the basis of the first and second tracking balance values, and adjusts the tracking balance on the basis of a third tracking balance value (*the result of subtracting the second TE signal from the first TE signal is proportional to the radial tilt and is used to achieve angle control*, Col. 25, Lines 31-40).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hayashi (US 6,963,521) discloses a disc drive apparatus including means for correcting a radial tilt.

Osada *et al.* (US 7,012,868) disclose an adjustment apparatus for an optical

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pick-up.

Chu (US 6,985,413) discloses a compensation method and device for tracking operation of an optical storage system.

Song *et al.* (US 6,862,088) disclose a method for providing adaptive control of a track servo.

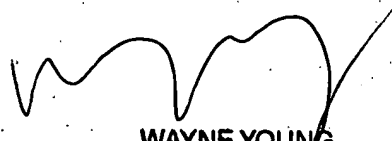
Yanagisawa *et al.* (US 6,865,144) disclose an optical pickup apparatus and a tilt amount detecting method.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minerva Rivero whose telephone number is (571) 272-7626. The examiner can normally be reached on Monday-Friday 9:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MR 5/17/06



WAYNE YOUNG
SUPERVISORY PATENT EXAMINER